

Cain, Alexis

Subject: EPA/Sterigenics all on Ethylene Oxide Emissions
Location: R5Metcalf-ConfRm-R1811/R5-Metcalf---18th-Floor

Start: Wed 6/27/2018 11:00 AM
End: Wed 6/27/2018 12:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Cain, Alexis
Required Attendees: Hoffman, Kathy; Julie.Armitage@illinois.gov; Nam, Ed; Siegel, Kathryn; Sieffert, Margaret; Nguyen, Phuong; Nwia, Jacqueline
Optional Attendees: Damico, Genevieve; Marcus, Danny; Furey, Eileen
Resources: R5Metcalf-ConfRm-R1811/R5-Metcalf---18th-Floor

Call-in number (202) 991-0477, Conference Code Non-responsive

Agenda to follow

Cain, Alexis

From: Cain, Alexis
Sent: Monday, June 25, 2018 11:11 AM
To: Hoffman, Kathy
Subject: RE: Technical Conference

Hi Kathy—I hope you had a good weekend. We'd like to schedule the conference call for 11-12:30 on Wednesday. I'll send an appointment with conference call information. Please let me know who you will be including from Sterigenics, and in particular whether you will include counsel. You are welcome to do so of course; I will not invite our counsel unless yours will be participating.

Here's a draft agenda for the meeting; I welcome your input. If you have questions that you'd like us to answer on the call, it would be great if you could provide them in advance. We'll try to provide some specific questions for you tomorrow.

- Introductions
- Questions from Sterigenics for EPA about modeling and monitoring, if any
- Timeline for construction project
- Estimated emissions after construction project
- Potential future monitoring/stack rests
- EPA questions for Sterigenics (modeling parameters-- description and location of emissions points, exit velocities and potential fugitive emissions sources-- we will try to get you some questions tomorrow)
- Future meetings

Thanks!

Alexis Cain
USEPA-Region 5
(312) 886-7018
cain.alexis@epa.gov

From: Hoffman, Kathy [mailto:KHoffman@sterigenics.com]
Sent: Friday, June 22, 2018 4:58 PM
To: Cain, Alexis <cain.alexis@epa.gov>
Subject: Technical Conference

Per our discussion this afternoon, following are some time periods next Wednesday and Thursday for an hour call to discuss technical details of this project:

- Wednesday: Anytime from 11am to 2pm
- Thursday: Anytime from 11 to 2:30pm

I am also working with Ramboll to review your EO monitoring and modelling studies. They may have some technical questions on these studies. I have suggested that they provide me a list of any questions and that I can bring this list to our technical conference call too.

Regards,
Kathy

Kathleen Hoffman

Senior Vice President - Global Environmental, Health & Safety and Technical Services

Sterigenics, A Sotera Health Company
2015 Spring Road, Suite 650
Oak Brook, IL 60523
Office: 630.928.1758
khoffman@sterigenics.com



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Cain, Alexis

From: Cain, Alexis
Sent: Friday, June 22, 2018 5:10 PM
To: Hoffman, Kathy
Cc: Nam, Ed; Siegel, Kathryn; Damico, Genevieve; Olson, Erik
Subject: RE: Technical Conference

Thanks Kathy—we'll try to get back to you with a time that works for us and Illinois EPA by Monday.

Have a great weekend!

Alexis Cain
USEPA-Region 5
(312) 886-7018
cain.alexis@epa.gov

From: Hoffman, Kathy [mailto:KHoffman@sterigenics.com]
Sent: Friday, June 22, 2018 4:58 PM
To: Cain, Alexis <cain.alexis@epa.gov>
Subject: Technical Conference

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Regards,
Kathy

Kathleen Hoffman

Senior Vice President - Global Environmental, Health & Safety and Technical Services
Sterigenics, A Sotera Health Company
2015 Spring Road, Suite 650
Oak Brook, IL 60523
Office: 630.928.1758
khoffman@sterigenics.com



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Cain, Alexis

Subject: Canceled: USEPA-Illinois EPA-Sterigenics Discussion of EtO
Location: (202) 991-0477 Non-responsive
Start: Fri 6/22/2018 10:00 AM
End: Fri 6/22/2018 10:45 AM
Show Time As: Free
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Cain, Alexis
Required Attendees: khoffman@sterigenics.com; Nam, Ed; Siegel, Kathryn; Olson, Erik; Julie.Armitage@illinois.gov
Optional Attendees: Furey, Eileen
Importance: High

Non-responsive

Cain, Alexis

From: Cain, Alexis
Sent: Friday, June 22, 2018 9:12 AM
To: Hoffman, Kathy
Cc: Nguyen, Phuong; Sieffert, Margaret
Subject: Modeling files
Attachments: Sterigenics.inp; Sterigenics.out

Kathy—here are our modeling input/output files.

Alexis Cain
USEPA-Region 5
(312) 886-7018
cain.alexis@epa.gov

Cain, Alexis

From: Cain, Alexis
Sent: Friday, June 22, 2018 7:42 AM
To: Hoffman, Kathy
Cc: Siegel, Kathryn; Nam, Ed
Subject: RE: USEPA-Illinois EPA-Sterigenics Discussion of EtO

Kathy— it is fine for you to include them in the discussion. We will talk at 10:00.

Alexis Cain
USEPA-Region 5
(312) 886-7018
cain.alexis@epa.gov

From: Hoffman, Kathy [mailto:KHoffman@sterigenics.com]
Sent: Thursday, June 21, 2018 11:19 PM
To: Cain, Alexis <cain.alexis@epa.gov>
Subject: RE: USEPA-Illinois EPA-Sterigenics Discussion of EtO

Alexis:

Thank you for this invite and opportunity to discuss this matter further with US EPA and IL EPA. I have forwarded the invitation to two advisors that I use for such matters: 1) Byron Taylor, an outside counsel from Sidley Austin Chicago that I use on environmental matters, and 2) Tom Roberts, attorney from VanNess Feldman that assists Sterigenics with government relations and regulatory matters in Washington DC. Given our discussions today, I felt it was important to include them in this discussion.

Let me know if you have any issues or concerns with them participating in our call tomorrow at 10am.

Regards,
Kathy

Kathleen Hoffman

Senior Vice President - Global Environmental, Health & Safety and Technical Services
Sterigenics, A Sotera Health Company
2015 Spring Road, Suite 650
Oak Brook, IL 60523
Office: 630.928.1758
khoffman@sterigenics.com



-----Original Appointment-----

From: Cain, Alexis [mailto:cain.alexis@epa.gov]

Sent: Thursday, June 21, 2018 4:50 PM

To: Cain, Alexis; Hoffman, Kathy; Nam, Ed; Siegel, Kathryn; Olson, Erik; Julie.Armitage@illinois.gov

Subject: USEPA-Illinois EPA-Sterigenics Discussion of EtO

When: Friday, June 22, 2018 10:00 AM-10:45 AM (UTC-06:00) Central Time (US & Canada).

Where: (202) 991-0477 Non-responsive

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Cain, Alexis

From: Cain, Alexis
Sent: Friday, June 22, 2018 7:40 AM
To: Hoffman, Kathy
Subject: FW: Sterigenics Modeling Parameters

Here is the original email that was sent to Sterigenics with all the modeling parameters. Several tries were made to communicate with Kevin following the requested return date but no responses were received.

From: Sieffert, Margaret
Sent: Wednesday, January 31, 2018 9:56 AM
To: kwagner@sterigenics.com
Subject: Sterigenics Modeling Parameters

Kevin,

Thank you again for agreeing to review the modeling information pertaining to the Willowbrook facility. Per our conversation, below are the questions to try and correct regarding the modeling parameters. We provided some information on the second building for your review but know that EPA only has all emissions coming from one of the buildings.

EPA used google earth to obtain these values. Let us know if Sterigenics is in agreement with them.

-For building #1's address (7775 Quincy St., Willow brook, IL), please verify building #1's corners (lat/long) and building height.

lat/long. Building height of 23.2 feet.

1. 41.748181; -87.939061
2. 41.748163; -87.939499
3. 41.748141; -87.939500
4. 41.748124; -87.940454
5. 41.748006; -87.940453
6. 41.748001; -87.940513
7. 41.747787; -87.940508
8. 41.747786; -87.940444
9. 41.747667; -87.940441
10. 41.747674; -87.939042

EPA would like to separate the emissions by building. Again we used google earth to obtain these values. For building #2's address (830 Midway Dr. Willowbrook, IL), please verify building #2's corners (lat/long) and building height:

lat/long Building height of 12.3 feet

1. 41.748865; -87.941666
2. 41.748877; -87.941221
3. 41.748956; -87.941226
4. 41.748945; -87.941667

Sterigenics/IEPA has the 6 listed stacks in the same location at the following lat/long located withing building #1's area: lat (41.747990) ; long (-87.939730). For modeling purposes, our modeler had to move these stacks 1.0 meter apart as shown below in the table. We are pretty sure that the stacks aren't located at these locations, so if you can provide the lat/long for each of the stacks, or if easier you can mark each stacks location for building 1 and 2 on a map (created using google maps or something similar) and share a screenshot. Also for modeling purposes, EPA has the facility operating 24/7 for 365 days but if this is incorrect, please let us know your annual operating hours.

For each stack that emits EtO, EPA needs the following information: stack lat/long, stack emission rate, stack height, stack exit temperature, stack flow rate, stack diameter, and if the stack is vertical or horizontal. Do you have process fugitive emissions not ducted to a vent or stack not listed in table below? Table below lists the input parameters we used in the modeling. The stack parameter information could be found in a permit application, a stack test, or from manufacturer specifications. With regard to the projected facility emissions after the back vent project, please provide the same information.

Unit ID	Process ID	Stack ID	Lat	Long	2014 Emission Rate (TPY)	Stack Height (m)	Stack Temperature (k)	Stack Exit Velocity (m/s)	Stack Diameter (m)	Vertical or Horizontal Stack?
39469613	45489714	Stack#1	41.747989	- 87.939729	0.030576	12.192	308.15	2.29	0.229	V
39469713	45489614	Stack#2	41.747989	- 87.939741	0.069888	12.192	308.15	2.29	0.229	V
39469813	45489514	Stack#3	41.747989	- 87.939753	1.39776	12.497	310.90	4.69	0.372	V
39469913	45489414	Stack#4	41.747998	- 87.939729	0.6552	12.497	310.90	4.69	0.372	V
39470013	45489314	Stack#5	41.748007	- 87.939729	0.00056784	10.058	293.00	11.14	0.914	V
39470113	45489214	Stack#6	41.74798	- 87.939729	0.62899	12.912	308.15	2.29	0.229	V

Finally, could you provide a property boundary of the facility that includes both buildings? This could be as simple as marking up a map (created using google maps or something similar) and sharing a screenshot.

Not sure how long this will take you to review, but suggests a potential completion date of February 23. If you need additional time, please let me know. Thank you again for your assistance in reviewing the modeling parameters and please don't hesitate to email or call me if you have any questions,

Margaret

**Margaret Sieffert | U.S. Environmental Protection Agency R5
Air & Radiation Division | Air Toxics and Assessment Branch
77 W. Jackson Blvd. (AT-18J) | Chicago, IL 60604 | 312.353.1151**

Cain, Alexis

From: Cain, Alexis
Sent: Thursday, June 21, 2018 5:11 PM
To: Hoffman, Kathy
Cc: Sieffert, Margaret
Subject: Monitoring Results
Attachments: Sterigenics_Public.jpg; Sterigenics Air Sampling Summary Sheet.pdf

Dear Kathy—here are the monitoring data results table and coordinating map. Please let us know if you have any questions.

Thanks,
Alexis Cain
USEPA-Region 5
(312) 886-7018
cain.alexis@epa.gov

Cain, Alexis

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